

## **BEST PROSPECTS FOR NON-AGRICULTURAL GOODS AND SERVICES**

### **1. TELECOMMUNICATIONS SERVICES (TES)**

Business Prospects in all information technology sector (IT) and Internet-related applications including telecommunications services, are expected to grow in Colombia. Additional users create demand for a wide variety of network and telecom-related services, including electronic commerce and network security. In the mid-term, business-to-business transactions are expected to comprise the majority of electronic commerce.

The market is serviced by 39 basic telephony companies, three cellular, four long distance carriers, 22 satellite transmission operators, 150 value-added service providers that include trunking/paging, 80 Internet, community, private and switched data networks, radio messages and other related services.

Telecommunications Services in Colombia:

Internet: Colombia is the fourth largest Internet market in Latin America, with approximately 600,000 Internet accounts and 1.5 million end-users. Internet use has increased considerably as a result of the Connectivity Agenda program of the government, that promotes widespread access to information infrastructure. Under this program, the government is implementing information technology training programs, establishing flat telephone rates for Internet use, granting temporary tax exemption for computers. It issued a mandatory e-government policy (201 central government entities were on line by the end of 2001), and encouraged the productive sector to use IT to increase competitiveness.

Network Access Point (NAP): This is the first wireless portal initiative in Colombia and the Andean region, and the second in Latin America (after Argentina). Established in 1998, this initiative is the alliance of 12 domestic Internet service providers, led by the Camara Colombiana de Teleinformatica (CCIT), and supported by multinational equipment manufacturers and service companies. This group supplies 80 percent of the Internet service in Colombia. NAP traffic is reported to be growing significantly.

Electronic Commerce: E-commerce development prospects in Colombia are promising. In 2000, the Colombian and the U.S. Governments signed a common declaration to cooperate in a barrier-free scenario and a transparent legal framework for E-Commerce. At the end of 2001, an estimated 200,000 Internet subscribers were using e-commerce. In 2001, approximately 800,000 firms had electronic identification certificates for secure transactions over the Internet.

Intranet Networks: Currently, 30 percent of companies with 500 or more employees are using an intranet and 45 percent plan to deploy one within the next two years. The most popular intranet applications include information sharing and publishing, e-mail, document management, electronic forms, and corporate directories.

Wireless Local Loop (WLL): In 2000 BellSouth and a French joint venture (ISA and First Mark) were awarded nationwide licenses. Additional regional licenses are authorized.

Telecenters: These connection centers are quickly becoming highly viable sales venues for the private and public sectors. As part of the Connectivity Agenda, \$50 million is scheduled for investment in 2002 to install telecenters (telephony/internet) in 500 rural communities

Submerged Fiber Optic Cable Projects: Colombia is a proposed landing point for the regional cable projects of Maya, Arcos and Global Crossing.

COMPARTEL Social Telephony Project: The goal is to bring community telecommunications services to the residential level in the country's small towns and rural areas.

#### Upcoming Services:

Personal Communications Systems (PCS): The Colombian Ministry of Communications is scheduled to award concessions for the offer of PCS services during 2002. The country will be divided into three service areas and each area will have a maximum of two operators.

Third Generation (3G): Colombia is expected to auction third generation systems around 2005, under the recommendations of the International Telecommunications Union (ITU).

Data Table (in millions of U.S. dollars)

	<b>2000</b>	<b>2001</b>	<b>2002*</b>
Total Market Size	5,400.0	5,750.0	6,009.0
Locally Owned Establishments	4,000.0	4,180.0	4,389.0
Cross Border Exports	1,100.0	1,149.5	1,207.0
Cross Border Imports	3,000.0	3,135.0	3,292.0
Imports from the U.S.	2,000.0	2,090.0	2,195.0
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\* These statistics are based on unofficial estimates.

## **2. INDUSTRIAL CHEMICALS (ICH)**

The market for all chemical products in Colombia has been estimated at \$5.9 billion. This sector is one of the largest and most complex in Colombia. The chemical sector accounts for approximately 4.7 percent of employment in industry. It also represents 3.5 percent of all establishments and 7.7 percent of gross manufacturing production.

Demand for basic chemicals for all industries; and especially active ingredients for the pharmaceutical, cosmetics, and food and beverage processing industries; is expected to maintain a steady growth of about 2 percent yearly. The chemical sector grew an average of 3.0 percent annually between 1995 - 2002.

The entire chemical sector was particularly favored by the open economy measures of 1991 with free licensing and minimum import requirements for about 85 percent of chemical product tariff classifications. Furthermore, Andean Community provisions provide patent protection for basic chemicals, active ingredients and several substances ordinarily imported by the majority of industry sectors. Most favored industries are the

agricultural chemical, pharmaceutical, veterinarian, cosmetics and food processing sectors, which could lead to new product development and investments in sectors with high consumption of industrial chemicals.

Industrial investment and research and development will enhance future prospects in this sector despite current low economic, financial and trade indicators. The Colombian market may well reach \$6.0 billion if market conditions improve in the short run, i.e. in 2003. Colombia's ability to compete in a global economy will depend on its ability to modernize and automate its industrial infrastructure. To increase sales of industrial chemicals, industrial investment is required in the food and beverage industry, the pulp and paper industry, the chemical industry and the majority of processing industries. Investment is also required in the areas of energy, oil & gas, coal, water supply, water and waste water treatment, and the application of environmental technologies.

U.S. suppliers have good opportunities to maintain their average share of the market for industrial chemicals if moderate expansion levels by some private firms in the petrochemical and chemical sectors are maintained. The two major refineries in Barrancabermeja and Cartagena will continue to be modernized, and there are firm plans for constructing at least one new refinery on Colombia's Caribbean coast.

Also contributing to opportunities for market growth in this sector are projects in the areas of water and waste water treatment, pulp and paper, electric and gas utilities, petroleum refining, plastics production, metalworking, automotive assembly, food and beverage processing, water supply, and environmental technologies.

Industrial chemicals are used in a range of industries such as chemical processing, pulp and paper products, water treatment, oil drilling, textiles, synthetic fibers, soaps and detergents, primary metallurgy, electronics, plastics, pharmaceuticals, cosmetics, fertilizers, explosives, paints and coatings, and food and beverage production. A growing demand for industrial chemicals should result from more serious implementation of the environmental legislation on water treatment. Other positive signs for increased demand in the short term are steady growth rates in the soap, detergent, edible oil and margarine industries; intensive oil and gas exploration and exploitation; and the expansion and modernization of refineries and other petrochemical facilities.

The agricultural sector has maintained healthy growth due to greater efficiency in cattle and poultry raising, as well as in the production of oil palm, sugar, rice, corn, flowers and fish/seafood products. Agricultural chemical consumption has declined recently, however, due to heavy rains that have destroyed several crops and due to an international coffee price collapse (with lower production and exports). Additionally, the expectation of the upcoming "El Niño" phenomenon during the second half of 2002 is yet another disappointing factor negatively affecting the steady growth of the agricultural sector.

Data Table (in millions of U.S. dollars)

	<b>2000</b>	<b>2001</b>	<b>2002*</b>
Total Market Size	5,394.2	5,502.8	5,942.4
Total Local Production	4,039.7	4,170.1	4,583.3
Total Exports	1,004.1	1,038.0	1,059.0
Total Imports	2,358.6	2,370.7	2,418.1

	<b>2000</b>	<b>2001</b>	<b>2002*</b>
Imports from the U.S.	857.1	802.9	819.0
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\*These statistics are based on unofficial estimates.

### **3. TRAVEL AND TOURISM (TRA)**

Approximately 484,000 Colombians visited the United States in 2001 (1 percent less than 2000), spending approximately \$610,000 million, not including airfare. The original forecast, prior to September 11, predicted an increase of approximately 4 percent. The decrease in travelers in 2001 was the first decrease in five years.

Colombians continue to look to the U.S. as their first-choice vacation destination. A combination of factors including attractive hotel rates, special airfares, security concerns in Colombia and the high-cost of domestic travel are motivating interest in travel to the U.S. The total number of Colombians traveling to the U.S. is expected to increase 5 percent in 2002 and 2003 respectively, despite two significant barriers: (1) currency fluctuations (the exchange rate as of May 7, 2002 was 2,288 Colombian pesos to one US dollar); and (2) the time needed to obtain a tourist visa (currently as long as 13-month).

Colombia ranks 17th in the world on the list of top arrival-generating countries, and fourth among the Latin American countries generating visitors to the United States. It follows Argentina, Brazil and Venezuela.

The main gateway for travelers is Miami, Florida (70 percent); followed by New York City (11 percent); Houston, Texas (6 percent); Puerto Rico (1 percent); and others, including Los Angeles, (12 percent). Colombian travelers to the U.S. fall into three main categories: business travelers, leisure travelers and those visiting friends and relatives. The average Colombian traveler spends \$180 per day (not including airfare) and spends an average of seven nights in the U.S.

Data Table (in millions of US dollars)

	<b>2000</b>	<b>2001</b>	<b>2002*</b>
Total Market Size	1,369.0	1,491.0	1,547.0
Expenditures of Colombian Travelers in the U.S.	513.0	610.0	640.0
Expenditures of Colombian Travelers in Third Countries	856.0	881.0	907.0
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\* These statistics are based on unofficial estimates.

### **4. AIR CARGO SERVICES (AVS)**

Air cargo in 2001 totaled 477,000 tons, including domestic services. Total international air cargo to and from Colombia was estimated at 373,000 tons (4 percent less than in 2000). The United States was the destination for approximately 185,000 tons (75 percent of the total outbound market). Flowers accounted for approximately 147,477 tons (81 percent) of total outgoing air cargo to the U.S. Other important products transported were textiles, apparel, fruits and other perishable products, and ornamental fish.

In 2001, total incoming air cargo was approximately 130,000 tons. The U.S. share of the overall inbound air cargo market was approximately 88,000 tons (68 percent). Other regions, such as Europe and South and Central America, have a minimum market share.

Preliminary government and industry estimates are optimistic on the overall outlook for Colombia in 2002. The total volume of outgoing/incoming air cargo is expected to increase by three percent for a total of approximately 491,000 tons in 2002. Incoming cargo from the U.S. is also expected to increase by 3 percent. These growth expectations are based on: (a) the government's plan to help local industry recover; (b) consolidated growth in non-traditional exports; and (c) the restoring of public order.

Data Table (in thousand tons)

	2000	2001	2002*
Total Market Size	489.0	477.0	491.0
Total Local Cargo	101.0	104.0	109.0
Total Outgoing Intl. Cargo	251.0	243.0	250.0
Total Incoming Intl. Cargo	137.0	130.0	134.0
Incoming Cargo from U.S.	92.0	88.0	91.0

\* These statistics are based on unofficial estimates

## 5. FINANCIAL SERVICES (FSN)

The financial sector's regulatory framework consists of a central bank (Banco de la Republica/BOR), the Vice Ministry of Finance, the Banking Superintendence and the Financial Institutions Guarantee Fund (Fondo de Garantias de Instituciones Financieras/FOGAFIN).

**Background - Ongoing Reforms:** The Colombian financial system experienced important transformations during the 1990's. Liberalization of Colombia's financial services was consolidated in 1991 with Resolution 51, which permitted 100 percent foreign ownership of financial institutions. Law 45 of 1990 and Law 35 of 1993 redefined the financial system and determined that foreign investors must receive prior approval from the Banking Superintendence to acquire an equity participation of 10 percent or more in a Colombian financial entity. The use of foreign personnel in financial institutions remains limited to administrators, legal representatives and technicians.

On August 3, 1999, Congress passed Law 510, which increased minimum capital requirements for the creation of new financial entities. Law 510 allows the government to intervene in those institutions that fail to meet performance requirements. Under this law, registry in the Financial Institutions Guarantee Fund (FOGAFIN, the FDIC equivalent) became mandatory, broader reserve requirements were established, and the term allowed for the liquidation of financial institutions was extended from 6 to 18 months.

On December 23, 1999, Congress passed Law 546, which restructured the system in place for financing housing. The new system provides incentives and better payment conditions for credit holders, and eliminates the monopoly that savings and loans

institutions had on the household credit market. In June 2000, the Constitutional Court upheld the constitutionality of Law 546. Such verdict has been crucial for the very modest recovery of the construction sector since, given its dependence upon the financial system.

**Credit Institutions - a specialized and segmented system moving towards universal banking:** Although Colombia's financial sector is small compared to other countries including the U.S., the large number and variety of institutions, branches and offices offer good opportunities for services and products, and strategic partnerships for U.S. companies. Preliminary analysis for the first half of 2002, shows that most of Colombia's financial institutions have shown profits and others are quickly recovering.

In addition to regular loans and banking operations, financial instruments, and international trade operations, Colombian banks need a range of information technology expertise including solutions and hardware for merging the operations of banking institutions. Electronic banking to support new products; e-banking solutions & hardware; security, risk management solutions & hardware are a must.

**Commercial Banks:** These institutions perform the broadest scope of service within the financial sector. They are allowed to complete the same operations as credit institutions, with the exception of leasing operations and real sector investments. Only Commercial Banks provide checking deposits.

Within this group, some institutions specialize in housing and other real estate construction financing (mortgage banks). For analysis purposes they are sometimes treated separately.

**Financial Corporations:** These are the only types of credit institutions allowed to invest (acquire shares) in the real sector and act as investment bankers. They can take term deposits and when their equity is above a predefined level, they can also receive saving deposits. Financial Corporations must act as medium and long term lenders according to parameters specified in their regulatory framework.

**Commercial Finance Companies:** These companies specialize in lending operations to facilitate the marketing of goods and services. Their basic funding source is term deposits. About half of these companies and their assets correspond to finance companies specialized in leasing.

**Financial Institutions and Activities:** The inherent financial activities in Colombia are provided by the following institutions under the direct supervision of the Banking Superintendence: 29 commercial/mortgage banks, eight financial corporations and 32 commercial finance companies. Banking Superintendence also supervises six pensions and severance fund managers, 42 trust companies, 11 financial warehouses and 14 foreign exchange dealers; as well as 50 insurance companies, and five capitalization companies. Other entities under Banking Superintendence are 103 representation offices of foreign banks, 107 insurance brokers 10 representation offices of foreign reinsurance companies, 13 credit cooperatives and several state-related quasi-financial institutions.

Financial institutions with foreign ownership include six mix banks (with Colombian and foreign capital), and three foreign banks (Citibank, Bank of Boston, and ABN-Amro

Bank). Three government-owned banks are in the process of privatization or scheduled to be privatized, and two financial corporations (savings/housing) are in the processing of converting to commercial banks per the housing Law 546 of 1999.

Until July 2001, the Colombian stock market consisted of three major stock exchanges: the Bolsa de Bogota, Bolsa de Occidente in Cali, and the Bolsa de Medellin plus the small Bolsa Agropecuaria for agricultural commodities. However, in July 2001, the three stock exchanges merged into the "Bolsa de Valores de Colombia" (Colombian Stock Exchange).

**Insurance:** Colombia permits 100 percent foreign ownership of insurance firm subsidiaries. It does not, however, allow foreign insurance companies to establish local branch offices. Firms must have a commercial presence to sell policies other than those for international travel or reinsurance. In addition, Colombia denies market access to foreign marine insurers.

Data Table (in millions of U.S. dollars as of June 30, 1999, 2000 & 2001)\*

	1999*	2000*	2001*
A. Total Assets	83,273	70,108	70,737
Private Local Financial Entities	24,398	20,916	21,380
Private Foreign Financial Entities	7,486	6,339	6,677
Cooperatives	1,077	29	24
Government Financial Entities	50,310	42,823	42,655
B. Total Liabilities	74,757	61,879	62,603
Private Local Financial Entities	21,167	18,280	18,741
Private Foreign Financial Entities	6,425	5,5395	5,847
Cooperatives	973	27	22
Government Financial Entities	46,190	38,032	37,992
C. Net Worth	11,060	4,114	9,957
Private Local Financial Entities	3,230	2,635	2,638
Private Foreign Financial Entities	1,061	800	830
Cooperatives	104	2	2
Government Financial Entities	6,664	676	6,486
D. Profits	-(423)	-(707)	381
Private Local Financial Entities	-(16)	-(140)	76
Private Foreign Financial Entities	-(39)	-(77)	37
Cooperatives	-(27)	-(2)	0
Government Financial Entities	-(340)	-(487)	268

\*Source: "Guia del Sector Financiero" (Colombian Guide for the Financial Sector - years 1999, 2000 & 2001); Data received by the Banking Superintendence through July 24, 2001.

Exchange rates: June 30, 1999 (US\$1 equals 1,694 Colombian Pesos)  
June 30, 2000 (US\$1 equals 2,144 Colombian Pesos)  
June 30, 2001 (US\$1 equals 2,296 Colombian Pesos)

## **6. AUTOMOTIVE PARTS AND ACCESSORIES (APS)**

Colombia has strengthened its position as an important automotive market because of economic relationships and several agreements signed with Andean countries, Colombia's main commercial partners in this sector. The Automotive Complementary Agreement signed with Venezuela and Ecuador, which defines a common policy for this sector within the Andean Community, has helped Colombia develop a competitive automotive industry, expand its frontiers and generate greater guarantees to local and foreign investors.

The Colombian automotive sector continues its recovery, according to trade sources there are visible signs that in 2001 local production of motor vehicles and automotive parts grew by 21 percent from \$958.7 million in 2000 to \$1,224.6 million in 2001. A growing demand for automotive parts and accessories is evident when one takes into consideration that the average life of most of the 2.6 million motor vehicles operating in Colombia is between 12 and 15 years.

Another factor favoring the automotive parts and accessories market is that approximately 80 percent of the Colombian transportation of cargo and passengers are overland. Transportation fleets need to keep their vehicles in optimum conditions to perform efficiently. The high price of vehicles and their consequent life spans as well as the poor conditions of most roads in Colombia means that keeping the vehicles in good mechanical condition is very important. The approximate 80,000 motor vehicles produced and imported annually also create a demand for after-market parts.

The development and growth of the automotive parts and accessories sector depends directly on the sale of motor vehicles in Colombia. Industry sources note that in 2000, motor vehicles annual sales increased by 21 percent to 77,812 vehicles, up from 61,347 in 1999. According to local trade sources, motor vehicle sales were up by 7 percent in 2001 selling 5,057 more vehicles than in 2000. Local assemblers had the highest market share with 58 percent, selling 38,658 units. Traditional importers followed with a 35 percent market share, selling 22,971 units. Also, local assembly operations participated with an additional 7 percent, importing and selling 3,962 units.

Demand of automotive parts and accessories from the three local manufacturing plants (GM, Mazda, and Renault) increased in 2001 especially for their export programs. Local carmakers have captured the market by increasing the variety of models produced in-country and for exports to Venezuela, Ecuador and other Andean countries. The well-diversified vehicle supply includes 42 brands and more than 480 different models. Imports of automotive parts and accessories and maintenance equipment are expected to grow as a result of the large number of vehicles imported and produced during the last five years, which are beginning to require replacement parts and maintenance.

The program proposed by transportation officials to replace 80,000 old public transport buses in the short term could mean about \$1.4 billion in investments. As an alternative, an immediate replacement program is deemed necessary for at least 3,000 buses, which



could cost approximately \$50 million. Another project, "Transmilenio," a massive articulated bus transportation system for Bogota requires parts and accessories for the assembly of approximately 300 buses and, in the near future, the parts and accessories to maintain these buses and to assemble the new ones integrated into the system.

Data Table (in millions of U.S. dollars)

	<b>2000</b>	<b>2001</b>	<b>2002*</b>
Total Market Size	1,169.7	1,636.3	1,718.1
Total Local Production	671.0	857.2	900.0
Total Exports	285.1	486.5	510.8
Total Imports	783.8	1,265.6	1,328.9
Imports from the U.S.	219.4	632.8	637.8
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\* These statistics are based on unofficial estimates.

## **7. COMPUTER HARDWARE AND SOFTWARE SERVICES (CSV/CSF)**

Colombia's computer hardware/software market amounted to \$701 million in 2000, \$802 million in 2001, and is estimated to reach approximately \$880 million in 2002. Real growth of 6.5 percent is predicted during the 2002 to 2004 period, with services growing about 12 percent.

The Colombian imported software market is estimated to have an annual value of \$250 million. The growth of PC software has been boosted by the constant growth of microcomputer sales, which can be used as an indicator to project the market for PC software applications. The price of software for medium and large machines also includes high service costs. As a result, it is difficult to separate services from software, since the same software publishers sell the software, the installation, set up and equipment integration, and the customizing of the product.

The applications that will see growth this year are related to CRM (Customer Relationship Management) or the management relations with the client, e-business, ERP, among others. This tendency exists because these technologies assist in the performance of essential tasks for organizations such as observing fulfillment in different areas, and thereby allowing them to make wiser business decisions. All new software applications should be Internet friendly.

In Colombia, software producers have created quality software adapted to national laws. Worth emphasizing is software designed for the areas of accounting, human resources, payroll, among others, which contains applicable legal and tax regulations. Such software facilitates the tax contribution process that Colombian companies must carry out under law.

An important characteristic of the computer sector in Colombia is the continuous change in market share (in units and dollars) within the computer, peripherals, and software categories. The Colombian market is composed mainly of PCs, networks, laptops and handheld computers. Although microcomputer sales represented only 10 percent of the market-share a few years ago, they now represent more than 32 percent, followed by peripherals at 25 percent and software at 20 percent. Related hardware (including

servers) represented 10 percent; networking products, 8 percent; and maintenance services, 5 percent.

By the end of 2002, it is estimated that the number of computers in use in Colombia will exceed 3.2 million units. By 2005, the information technology sector will represent over 5 percent of the GDP, with related services predicted to be at 40 percent of this total market.

Data Table (in millions of US dollars)

	2000	2001	2002*
Total Market Size	701.5	802.0	880.0
Total Local Production	3.5	4.8	8.0
Total Exports	2.0	2.8	3.2
Total Imports	700.0	750.0	803.0
Imports from the U.S.	420.0	453.0	481.0
Service	210.0	226.0	246.0
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\*These statistics are based on unofficial estimates.

## 8. OIL AND GAS MACHINERY AND SERVICES (OGM/OGS)

Colombia has 18 sedimentary basins covering over 1,036,400 square kilometers. Seven of these basins have ongoing commercial production activity. The total area under exploration and production is about 200,000 square kilometers, leaving most of the country available for additional upstream exploration contracts. At the end of 2000, Colombia had some 1.9 billion barrels in oil reserves (down from 3.4 billion in 1992), and with an annual oil production rate of about 400 million barrels per year, reserves would last for five years, making Colombia a net importer of crude. As a result, the Colombian government has made oil exploration a top priority.

ECOPETROL estimates that it will be necessary to discover between 3 to 5 billion barrels and invest four billion dollars in exploration between 2002 and 2010 if Colombia wants to continue being a net exporter of hydrocarbons. This represents only a small portion of the estimated potential reserves that the 13 Colombian sedimentary basins may contain. According to the Ministry of Mines and Energy, these reserves may hold as many as 37 billion barrels, of which 24 billion may be in active areas and 13 billion in areas where little exploration or no exploratory activity has been carried out.

To attract needed investment, the Colombian Ministry of Mines and Energy has added new incentives and is developing a comprehensive data bank that interested firms can consult to determine the areas for conducting exploration activities. Regulatory modifications introduced include reduction of royalty payments from a flat 20 percent of total production to a percentage that varies according to the volume of production and international oil/gas prices. Other changes aim to reduce the government's current 50 percent participation in the profits after deducting royalties and costs. This participation now fluctuates according to the size of the reserves discovered. By the end of 2000, there were 48 foreign firms that had signed 95 association contracts with Colombia's state-owned oil company (ECOPETROL).

The oil, gas and petrochemical sectors have several upcoming projects estimated at \$1.5 billion that could be very attractive to U.S. firms. These projects include a \$500 million expansion of the Cartagena Refinery to increase its capacity to 140,000 barrels of crude per day, a \$130 million private-sector sponsored industrial utilities and service facility, a \$730 million Olefin Cracking Plant, a \$130 million Cusiana/Cupiagua Gas Treatment Plant, among other investments.

Best prospect equipment for the sector includes chemical additives for the drilling process; rotary rock drill bits; drill pipe for oil and gas; casing and tubing pipe; drilling rigs and collars; and other parts and components for oil and gas field equipment.

Data Table (in millions of US dollars)

	<b>2000</b>	<b>2001</b>	<b>2002*</b>
Total Market Size	774.7	788.6	802.5
Total Local Production	46.0	46.0	46.0
Total Exports	3.3	3.4	3.5
Total Imports	732.0	746.0	760.0
Imports from the U.S.	407.0	415.0	425.0
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\*These statistics are based on unofficial estimates.

## **9. PLASTICS MATERIALS AND RESINS**

The Colombian plastics processing industry registered significant growth in 2001 as a result of local producers aggressive efforts to overcome the negative effects of the severe economic slowdown from 1998 to 2000. Industrial plastic production has also performed favorably during the first quarter of 2002. According to the National Industrial Association, plastic production grew by 5.5 percent in 2001 and total sales by 4.4 percent. Real growth in the plastics sector should average four to five percent annually during the 2002-2003 period in real terms as the Colombian economy and local demand for plastic products grow and the export programs are accomplished.

The local demand for plastic materials and resins is estimated at 550,000 tons per year, assuming an apparent consumption of fourteen kilos of plastic products per capita. The bottling and packaging industries serving the food processing, health, cosmetics, industrial products, and lubricating products markets are the major clients for plastics materials and resins. Additionally, the construction sector, another important plastic products end-user, grew by 16 percent. These industries use approximately sixty percent of the total imported and locally manufactured plastics materials and resins. Plastic extrusion accounts for the largest demand, with 64 percent of the market. Injection accounts for 16.5 percent; blowing 9.5 percent; with calendering, thermoforming, and molding accounting for ten percent.

Despite active production estimated at \$640.2 million in 2000 and \$665.9 million in 2001, plastic materials and resins imports account for approximately 65 percent of the total market, with the U.S. market share averaging 38 percent for the 2000-2001 period. There is modest competition from Venezuela, Germany, the Republic of Korea and Mexico. Propylene, styrene, polyethylene of 0.94 gravity or more, polyethylene of less than 0.94, linear low-density, polypropylene, polyvinyl chloride, and polyesters are the best prospects for imports into Colombia. In 2001, U.S. plastic materials and resins

imports to Colombia grew by five percent from \$204.5 million in 2000 to \$213.1 million in 2001. For 2002, industry sources forecast that U.S. imports may grow by four percent as a result of the reactivation of the plastics sector and the exports program carried out by the local plastics association and the Colombian Ministry of Foreign Trade. Colombia is still a large export market for U.S. plastic materials and resins.

Data Table (in millions of U.S. dollars)

	<b>2000</b>	<b>2001</b>	<b>2002*</b>
Total Market Size	997.9	1,038.5	1,087.6
Total Local Production	640.2	665.9	692.5
Total Exports	180.6	189.6	195.2
Total Imports	538.3	562.2	590.3
Imports from the U.S.	204.5	213.6	224.3
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\* These statistics are based on unofficial estimates.

## **10. TELECOMMUNICATIONS EQUIPMENT (TEL)**

The total market for telecommunications equipment was \$600 million in 1999. It remained basically unchanged in 2000, and amounted to \$550 million in 2001. It is expected to grow by 4.5 percent in 2002. Current market trends suggest good market prospects in 2002-2003 to meet the demand generated by the upcoming Personal Communications Services (PCS). Another good opportunity for U.S. suppliers is the migration of the two largest cellular companies from TDMA transmission technology to GSM and CDM.

Opportunities for telecommunications manufacturers and service providers is evidenced by the presence of subsidiaries of principal world suppliers such as IBM, 3Com, Hughes, Harris, Unisys, NCR, Microsoft, Motorola, Oracle, Worldcom, etc. Other brands sell through dealers or exclusive distributors. Lesser-known products are sold or distributed through local representatives. They are also imported directly through resellers that generally buy from wholesalers or large volume dealers in Miami. New third-country manufacturers and service suppliers are also establishing subsidiaries in Colombia.

Some signs of regaining strength in the economy as well as technological development in the telecom and information technology sectors are attracting international interest and rather significant foreign investment in Colombia. Continuing structural reforms will enhance general growth and trade prospects, offering increased potential for U.S. service providers in the telecommunications and IT sectors, if companies use an appropriate marketing strategy and approach to Colombian end-users, both in the private and public sectors. This growth must be accompanied by an increase in the installed capacity and the nation's production facilities. Long-term projections will depend on Colombia's industrial competitiveness. The market has good future growth potential.

Data Table (in millions of U.S. dollars)

	<b>2000</b>	<b>2001</b>	<b>2002*</b>
Total Market Size	500.4	550.0	575.0
Total Local Production	11.7	11.0	11.8
Total Exports	6.3	6.0	6.4
Total Imports	495.0	545.0	580.0
Imports from the U.S.	207.9	231.5	246.0
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\* These statistics are based on unofficial estimates.

## **11. ELECTRICAL POWER SYSTEMS (ELP)**

The outlook for the Colombian electrical power sector continues to be positive. Demand for energy power systems correlates with demand for electricity which, in turn, correlates with GDP growth. Colombia's GDP growth rate was 2.8 percent in 2000 and a lower-than-expected 1.5 percent in 2001. Demand is now closer to these growth rates.

Demand for electric power was 43,378 GWh in 2001, a 2.16 percent increase over the 42,460 GWh demand in 2000. This demand is expected to rise to 45,000 GWh by the end of 2002.

Current installed capacity of 12,752 MW will cover demand in the short term. However, weather phenomena such as El Niño will likely cause an energy crisis in the mid-term (2004-2005). The government has announced a Rural Energy Program using renewable energy systems to provide energy to presently off-grid areas. This program calls for new generation systems and the recovering of existing ones. Additionally, guerrilla attacks have shown the fragile nature of the transmission system. Only two lines connect the two main network subsystems. New grid connections are urgently required. Investment opportunities are bright as new generation installed capacity is required.

Good business prospects exist in generation with respect to trends in the market to replace hydroelectric stations with gas-fueled thermal energy generators. This trend exists mainly because of the lower initial investment involved with the gas option. Transmission companies are looking to optimize their existing networks. Trade and distribution companies are focusing on loss reduction by acquiring and implementing leading edge management and control systems technologies.

The free market has produced some advantages, and customers are paying lower rates for their electric power service. Although rates do not yet reflect real production costs, the government has shown awareness of the situation by issuing a power rate increase proposal to allow energy sector investors to recover their investments.

Despite a recent decrease in electric sector imports, the U.S. remains Colombia's number one supplier of energy power systems and components, accounting for over one third of the market.

Colombia has just completed the first phase of the privatization process in the electric power sector. However, the Pastrana administration has repeatedly postponed its plans to privatize profitable companies such as ISA (small general public shareholders reached 24.36 percent ownership on May 10, 2002), ISAGEN, and twelve other regional electricity distributors.

Data Table (in millions of U.S. dollars)

	<b>2000</b>	<b>2001</b>	<b>2002*</b>
Total Market Size	425.0	426.0	438.7
Total Local Production	286.0	322.0	331.7
Total Exports	79.0	99.0	102.0
Total Imports	218.0	203.0	209.0
Imports from the U.S.	122.0	82.0	84.5
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\* These statistics are based on unofficial estimates.

## **12. SAFETY & SECURITY TECHNOLOGIES AND EQUIPMENT (SEC)**

Colombia offers a wide range of investment opportunities that are often overlooked because of the country's complex security situation. The illegal activities of armed groups financed by narcotics traffickers generate a climate of uncertainty and unrest among Colombians. They have resorted to hiring private security firms in recent years in order to conduct their personal and business activities more calmly and safely. The ups and downs of a suspended peace process with the guerrillas that the nation has endured for over three years without concrete results has contributed to a growing feeling of insecurity within companies and among individuals. The security situation in Colombia has gradually deteriorated since 1998. This deterioration has been more pronounced in rural areas than in the larger cities. The cities, however, have also witnessed a steady increase in security incidents and problems.

The security business in Colombia is attractive enough for many multinational companies that see Colombia as a promising and highly profitable market. End-users in Colombia have begun to understand the benefits involved in purchasing protective technologies both at the personal and corporate level. Companies also have recognized that running a business involves conducting surveillance activities and keeping control of people, information, and property. Managers are now seeing the benefits of implementing security systems to reduce costs for the company while helping to generate a sense of discipline and to increase their employees' security awareness.

Specifically, the demand for perimeter protection, intrusion detection, and panic button systems has grown to the point of becoming a priority for middle to high-class families and also for a wide range of businesses.

Safety and security equipment used in Colombia is not produced in-country because there is no significant local investment in electronics research and development. About 80 to 90 percent of existing demand is supplied by local companies selling foreign-made products. The market trend is one of moderate growth, nurtured in part by the uncertainty of the peace process between the Government and guerrillas recently suspended and the steady increase in crime rates throughout the country.

The following are the sub-sectors with the best prospects for success:

Alarm Monitoring and Security-System Integration:

- Intrusion Detection
- Panic-button systems

- Closed Circuit TV (CCTV)
- Access Control
- Perimeter Security
- Fire Protection (Detection and Extinction Systems)

Information Security:

- Automatic Vehicle Location (AVL)
- Vehicle and Architectural Armoring

Given the nature of its activities, the financial and banking sector may well face the highest risks. Among the risk scenarios analyzed by security experts for this sector are theft, legal sanctions, income loss, loss of clients and public image, loss of competitive advantage, loss of assets, incorrect decision-making due to unreliable information and fraud.

The complex risk scenario this sector faces makes it one of the largest consumers of security systems and products, covering practically the entire spectrum including physical security such as vaults and armored vehicles and hardening installations. Access control systems using strict authentication methods (biometrics have become particularly popular in recent years), intrusion detection systems and assault-reporting devices (panic button systems), and information security technologies (logins, passwords, software & hardware security) have all grown considerably in recent years.

Data Table (in millions of U.S. dollars)

	<b>2000</b>	<b>2001</b>	<b>2002*</b>
Total Market Size	273.6	184.1	189.2
Total Local Production	25.2	25.6	26.3
Total Exports	14.5	7.1	7.2
Total Imports	262.9	165.6	170.1
Imports from the U.S.	90.0	56.7	58.1
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\*These statistics are based on unofficial estimates.

### **13. FOOD AND BEVERAGE PROCESSING AND PACKAGING EQUIPMENT (FPP)**

The 2002 import market for food and beverage processing and packaging equipment could reach \$114 million, a 25 percent increase over \$97 million in 2001. The market could also growth and additional 20 percent in 2003. These large increases represent a major recovery for a market that was only \$78 million in 2000. The U.S. is expected to maintain its lead as the sector's key supplier with 24 percent of the market.

This expected upward trend is due, in part, to the sector's large companies' decision to focus more on international markets, a strategy that requires more production capacity and advance technology. Bavaria S.A., is one example. The brewery has implemented both expansion and technological updates to improve production efficiency and also protect the environment in its facilities.

The sector is an important component of the national economy and contributes approximately 10 percent of the Colombian GDP. It also ranks as one of country's lowest risk sectors.

Major sector characteristics include and national alliances for more efficient utilization of resources and installed capacity, and international alliances to attract foreign investment and advanced technology.

Data Table (in millions of U.S. dollars)

	<b>2000</b>	<b>2001</b>	<b>2002*</b>
Total Market Size	93.3	109.7	132.2
Total Local Production	25.0	32.2	43.5
Total Exports	9.6	13.8	19.3
Total Imports	77.9	99.3	114.0
Imports from the U.S.	25.6	23.8	27.4
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\*These statistics are based on unofficial estimates.

#### **14. MEDICAL EQUIPMENT AND SUPPLIES (MED)**

Between 2000 and 2001, Colombian market for medical equipment and devices grew 2.1 percent from \$151.2 to \$154.4 million, and it is expected to grow an additional 3 percent during 2002. It is expected that the demand will continue this upward trend during the next three years.

The United States is the leading supplier of medical equipment and devices to Colombia with a 48.4 percent market share during 2000 and 2001, Germany followed with 9.6 percent, and Brazil with 6.5 percent. The U.S. share is projected to reach 52 in 2002.

Major Colombian imports include electro-diagnostic and other electro-medical equipment, orthopedic equipment, and spare parts. Local production focuses mainly on equipment such as autoclaves, X-Ray viewing screens, furniture, etc. However, local manufacturers also produce catgut, venoclisys equipment, syringes, ophthalmologic lenses, surgical gloves, etc.

After nine years under the current Colombian health care system, it has approximately 16 million affiliates and is recognized as one of the most complete, efficient, and as a good example of solidarity. With improved management efficiency, the system could increase health care coverage and services efficiency, thus increasing market opportunities for U.S. suppliers.

The Empresas Promotoras de Salud - EPSs (local HMOs) are making progress, but still have a long way to go. They are paying overdue debts owed to hospitals, clinical laboratories, and other health care services providers, known in Colombia as Instituciones Prestadoras de Servicios (IPSS). Nevertheless, the EPSs have just surpassed the financial equilibrium point and the cash flow is not yet sufficient to pay creditors in full. The government owned Instituto de Seguros Sociales (ISS), which is Colombia's largest EPS and the one with the most serious financial problems. However,



it has improved during 2001-2002 and has reached agreements with its major creditors for on going scheduled payments.

The Colombian judicial system is enforcing the mandatory EPSs' health coverage even for patients needing treatment for catastrophic diseases. In the past, EPSs often denied health care stating pre-existence and other arguments. As a result, EPSs are improving and expanding preventive care, early diagnosis services, and advanced technology to reduce treatment costs.

EPSs should continue on a slow upward trend that will also improve the situation of the IPSs, resulting in a more substantial reactivation during 2003-2004.

Data Table (in millions of U.S. dollars)

	2000	2001	2002
Total Market Size	151.2	154.4	158.0
Total Local Production	65.8	67.3	70.0
Total Exports	13.6	16.8	21.0
Total Imports	99.3	103.9	109.0
Imports from the U.S.	48.4	48.4	52.0
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\* The above statistics are unofficial estimates.

## 15. APPAREL (APP)

Colombia's textile and apparel industries operate with some degree of self-sufficiency. However, they also rely on imports of technology, machinery, non-cotton fibers and fabrics, raw materials for synthetic fibers and fabrics, and novelty items (buttons, hardware, accessories). Accounting for about 2 percent of Colombia's GDP, the textile and apparel industries are an important component of the domestic economy. Colombian import and customs controls on foreign textiles and apparel from Asia, Ecuador and Panama have improved greatly. Under-invoicing, dumping, and contraband have negatively impacted the textile and apparel industries for years. But, increased export promotion, opening of new markets and governmental protective measures against foreign unfair competition are diminishing further damages to these industries.

Five integrated mills that command a majority share of the total textile market is dominated by the Colombian textile industry. There is a sizeable, growing market for cotton yarns and fibers, primarily due to emphasis on increasing exports of quality textiles and apparel. Domestic cotton fiber production is insufficient to fulfill demand, both in quality and quantity. Declining cotton output has resulted in an increased dependence upon fiber imports, which now satisfy fully 60 percent of domestic cotton requirements. The opening of the Colombian market to imports has forced Colombian textile and apparel companies to switch from offering a wide variety of products to fewer items on a larger scale.

Due to its geographic location; its regional integration, i.e., Andean Community (with Venezuela, Ecuador, Peru and Bolivia), and the G-3 (with Mexico and Venezuela); and its long experience in the textiles sector, Colombia is a key textile gateway to markets of the Andean Community, and should be the central focus of any regional export strategy.

The United States has traditionally been Colombia's main trading partner, supplying an average of 35 percent of Colombia's merchandise imports and purchasing an average of 45 percent of its exports. Colombians are familiar with U.S. shopping malls, retail stores, and outlets. While visiting the U.S., many select and order merchandise for their stores and boutiques in Colombia. Purchasing agents and employees from department stores and hypermarkets frequently travel to the U.S. and Europe in search of new products. Colombians are also familiar with U.S. trade and fashion shows and know the wholesalers. Colombian consumers have shown preference for good quality U.S. styles, designs, prints, and prices.

Consumer spending on apparel varies according to income. Middle and high-income families tend to buy good quality products from Colombia, United States, and Europe. Lower income families tend to buy low-priced Colombian apparel and inexpensive Asian and other third-country products. On many consumers still buy contraband fabrics and apparel; middle-income families buy both Colombian and foreign irregular, off-season, and used clothing (to a lesser degree now since used-clothing imports are restricted). The counterfeiting of apparel and brand name labels in Colombia has been a major problem for years, especially for Levi's jeans, which are produced in Colombia under a licensee agreement, both for export and for the domestic markets.

Best prospects are mostly of man-made fibers, include men, boy, women and girls' clothing, including sweaters and pullovers, swimwear, dresses, suits, ensembles, overcoats, anoraks, silk ties, shirts and blouses, T-shirts, tank tops, trousers, and shorts; and also women and girls' lingerie including pantyhose, tights, stockings, hosiery, brassieres and panties.

Import duties are ad valorem and are assessed on the CIF value of shipments. Colombia's tariffs conform to the 5 percent to 20 percent Common External Tariff (CET) in effect for the Andean Community. Government entities are no longer exempt from import duties. Imports of apparel are classified under chapters 61 and 62 of the Colombian Harmonized Tariff Schedule and can easily be imported into Colombia. Apparel is assessed between 15 percent and 20 percent import duty on CIF value plus a 16 percent value-added tax (VAT) assessed on the CIF-duty-paid value of apparel imports.

Data Table (in millions of U.S. dollars)

	<b>2000</b>	<b>2001</b>	<b>2002</b>
Total Market Size	621.3	580.6	592.2
Total Local Production	1,068.1	1,100.2	1,122.2
Total Exports	514.2	589.0	600.8
Total Imports	67.4	69.4	70.8
Imports from the U.S.	30.4	31.3	32.0
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\* The above statistics are unofficial estimates.

## **16. CONSTRUCTION AND MINING EQUIPMENT (CON/MIN)**

The Colombian economy grew some 1.6 percent during 2001; however, government and private sector investments in infrastructure decreased during the same period. The recession affected most economic sectors including the construction and mining

industries. The Colombian government continued with its efforts to improve the condition of its road network, facing challenges such as a high degree of deterioration, a lack of maintenance, and insufficient geographic coverage. Major investments in this area are still needed to reduce the current excess costs in transportation expenses since roads are used to transport the vast majority of the country's cargo.

The government continued with its plan to expand the national road network and to increase investments to repair and maintain the existing highway network. Under this plan the National Highway Institute expected to receive some \$358 million per year to maintain its 16,500-kilometer road network. Ministry of Transportation sources estimate that Colombia more than 70,400 kilometer of roads that fall under the jurisdiction of many state and municipal entities.

These efforts complement the investments being made by private firms under a \$1.2 billion concession program to build, repair and maintain more than 6,000 kilometers of roads. In addition, the government opened a \$274 million international tender for the construction of the La Linea tunnel on the road between Bogota and the port of Buenaventura. The project has undergone several changes in its scope, and government sources expect another bid process to open in April. Additional investments involve state and city road networks, railroads, and ports (sea and fluvial). Equipment for road construction, earth-moving, road repair and maintenance offers the most potential. Although there is a large equipment base already in the country, new equipment will be needed.

The participation of the mining sector in the Colombian economy reached 1.9 percent of the Gross Domestic Product in 2000. Coal is the sector's main product, making Colombia the fourth largest exporter in the world (43.9 million tons in 2001), increasing its share of total exports and becoming the second most exported Colombian product after oil, and generating more than \$1.2 billion in 2001 (up 36 percent). Coal reserves in Colombia are estimated at 6.6 billion metric tons (about 40 percent of the Latin American coal reserves).

The new national mining code, which was enacted as Law 685 of 2001, and the revision of the national mining development plan (PNDM) are expected to lead to faster development of new mining projects and to help the government achieve its aim to increase exports. Several mining products, especially coal, are best positioned to reach this objective.

Most Colombian mines are open-pit mines, although there are some minor underground mining operations. Best prospects for mining equipment include shovels, excavators, front loaders and related equipment and parts.

Data Table (in million of US dollars)

	<b>2000</b>	<b>2001</b>	<b>2002*</b>
Total Market Size	92.2	129.4	151.0
Total Local Production	8.5	8.0	8.0
Total Exports	17.7	28.2	29.0
Total Imports	101.4	149.6	172.0
Imports from the U.S.	66.2	105.9	120.0
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\*These statistics are based on unofficial estimates.

## 17. POLLUTION CONTROL EQUIPMENT (POL)


Environmental investment in both the public and private sectors is pretty much at a standstill, due to the country's economic situations. The Colombian economy grew some 1.6 percent during 2001. Close to 25 percent of Colombia's population (10.1 million) lacks aqueduct services and 40 percent (16 million) lacks sewer coverage. The government estimates that the country's total environmental needs range between \$3.3 to \$3.4 billion per year to maintain an adequate level of investment. The World Bank estimates annual investment needs in aqueduct and sewerage systems to be \$700 million, or \$1 billion if wastewater treatment plant needs are included.

The Ministry of the Environment states that about 80 percent of Colombian municipalities dispose their wastewater untreated into bodies of water such as rivers or lakes. Colombia is a regional leader in the development and implementation of the wastewater pollution charge (tasas retributivas). Several environmental agencies have developed regional funds to finance wastewater treatment plants. Cities, such as Bogota and Medellin, are building wastewater treatment plants or other disposal systems. Cities across Colombia are developing plans to implement submerged outfall systems.

Regulations regarding air pollution and solid and hazardous wastes are being developed or updated at a time when public financing is almost non-existent. A major obstacle to the sector's growth is the current fiscal deficit that affects the availability of resources from the government budget. Most public sector funds are expected to come from transfers from the electric power sector and the collection of royalties, taxes, and other contributions from the so-called "green markets". New financing arrangements for the private sector include new credit and tax incentives like sales and income tax exemptions for environmentally sound technologies, new economic instruments and pollution charges, carbon dioxide sequestration options and other stock market alternatives.

Best prospects include water and wastewater treatment plants, water pollution monitoring and control equipment, solid waste hauling and disposal equipment, air pollution monitoring and control equipment, and environmental services (consulting). The operation and management of municipal services such as providing potable water and collecting, hauling and disposing of solid waste offers good market opportunities for private firms.

Data Table (in million of US dollars)



	2000	2001	2002*
Total Market Size	92.5	105.7	116.0
Total Local Production	4.0	3.5	4.0
Total Exports	4.6	8.4	10.0
Total Imports	93.1	110.6	122.0
Imports from the U.S.	57.4	69.9	76.0
Exchange Rate (year end)	2,229.2	2,291.2	2,451.7

\*These statistics are based on unofficial estimates.